CHAPTER V: ECONOMIC AND FISCAL IMPACT ANALYSIS

SECTION A: INTRODUCTION

There are three main sections of the economic and fiscal impact analysis. The first section—the Cost Analysis—presents estimates of total costs for Placer Legacy implementation. The analysis describes the costs and the assumptions behind the estimates. The second section is an evaluation of potential fiscal impacts on Placer County of alternative mechanisms for protecting open space and agricultural lands. The different mechanisms under consideration would have different impacts on County revenues. The third and final section outlines various economic benefits of programs such as Placer Legacy.

SECTION B: COST ANALYSIS

Overview

The purpose of the Placer Legacy cost analysis is to generate estimates of the costs of the proposed countywide program to protect and conserve open space and agricultural lands in Placer County. The largest cost component of the Placer Legacy proposal is the cost to undertake proposed land management activities. This includes one time capital costs to obtain public interests in open space, agricultural lands, and important biological resource lands, as well as other initial costs to develop plans for managing the lands and to undertake habitat restoration and capital improvements for outdoor recreation. The land management activities also require on-going annual costs to maintain and monitor lands under the stewardship of Placer Legacy.

In addition to land management activities, the Placer Legacy proposal includes a number of program elements that also have cost implications. Some of these are short-term efforts as Placer Legacy implementation also refines programs to protect agricultural land from conversion, identifies methods of protecting Sierra Nevada resources, identifies significant scenic qualities and locations and lands with public safety constraints, and monitors trends affecting resources. Others are envisioned as on-going implementation efforts. Examples of the latter include marketing and tax planning assistance to Placer County farmers; increased staff resources devoted to agricultural land conservation; active participation in public land planning, land exchanges, and management agreements to facilitate protection of Sierra ecosystems; and evaluation and program development to protect historic and cultural resources.

The cost analysis provides cost estimates for both land management activities and the program activities proposed as part of Placer Legacy. Throughout, the analysis is provided for three levels of effort, described in Chapter III, Section C. The three scenarios—Low Involvement, Moderate Involvement, and High Involvement—reflect the range of possible levels for land management in terms of number of acres and depth of stewardship activity. For the program components, cost estimates for low, moderate, and high scenarios reflect a possible range for levels of staff and funding commitment.

The cost estimates presented here were developed in support of the Placer Legacy planning effort and serve as the basis for developing a funding proposal for Placer Legacy. Some of the preliminary estimates will undoubtedly be refined based on review and comment during the

planning process. In any case, the estimates will remain just that: estimates. They are approximations for planning purposes, based on the best information available. The land management cost factors are averages representing a variety of potential actual situations. The actual costs for obtaining land or for operating and monitoring for any particular set of Placer Legacy lands are likely to vary from the average estimates developed for the cost analysis. Moreover, the actual experience of implementation will result in subsequent revisions to costs estimates undertaken periodically as a regular task of administering Placer Legacy.

Estimated Total Costs for Placer Legacy

Placer Legacy costs are estimated for capital—one-time—costs and for annual on-going costs. For land management activities, capital and one-time costs include the costs of obtaining land, the costs of restoring and enhancing biological habitat, the costs of developing improvements to enhance public access and enjoyment of outdoor recreation lands, and the costs of developing plans for how all lands would be managed in perpetuity in the public interest. For program activities, one-time (or initial) costs include preparing the HCP/NCCP as well as short-term tasks that would be undertaken over the next one to three years of Placer Legacy implementation to refine various aspects of the overall effort. Annual costs for land management activities include the costs of long-term operations and maintenance for lands and resources, monitoring biological resource values and compliance with easement terms, and associated administrative costs. Annual costs for program activities include staff efforts in public assistance, public education, interagency coordination, and planning related to various Placer Legacy elements, as well as associated administration.

The one-time capital costs would occur over time as land was obtained and developed. For the purposes of this planning effort, it is assumed that public interests in all land would be obtained within a 30-year time horizon, with half occurring in the first 10 years, another 25 percent in the second 10 years, and the final 25 percent by year 30. As the public interest in Placer Legacy lands is obtained and defined, on-going annual operating and monitoring costs would begin to occur. Those costs would be lowest in the earlier years and would peak and level off after all the interests were obtained.

Table 5-1 shows total Placer Legacy costs for both land management and program activities, for the three scenarios reflecting high, moderate, and low levels of effort.

Table 5-1. Total Costs to Implement Placer Legacy for Three Scenarios (costs in 2000 dollars)

Cost Component	Low Effort	Moderate Effort	High Effort
Land Management Activities			
X Obtaining Public Interest	$19,770,000	$72,746,000	$155,938,000
X Planning, Start-Up, and Development	4,908,000	18,659,000	25,539,000
On-going Operating and Monitoring	1,005,000	2,423,000	3,527,000
Program Activities			
X One-year Effort	$5,000	$49,000	$64,000
X Two-year Effort	--	40,000	53,000
X Three year Effort	--	5,000	25,000
X Preparation of HCP/NCCP	543,000	886,000	1,279,000
On-going Costs	28,000	145,000	225,000
Summary of One-time Costs over 30 Years	**$25,226,000**	**$92,385,000**	**$182,898,000**
Summary of On-going Annual Costs Year 30 and Beyond	**$1,033,000**	**$2,568,000**	**$3,752,000**

X = one-time and capital cost.
SOURCE: Hausrath Economics Group, Thomas Reid Associates, and the Placer County Planning Department.

One-time costs range from $25 million for the low effort scenario to $183 million for the high effort scenario. The one-time costs for the moderate scenario would total about $92 million. The cost of obtaining the public interest in Placer Legacy lands is the primary component of those one-time costs. Obtaining fee title interest and easements would be about 80 to 85 percent of total one-time costs. The initial planning and development component adds another 15 to 20 percent to initial costs. A major contributor to this cost would be development of outdoor recreation facilities. Capital costs for restoring and enhancing biological resource lands would also be a significant component of these one-time start-up costs. In Table 5-1, the summary for one-time costs includes the one-, two-, and three-year program activity efforts and preparation of the HCP/NCCP.

Land management activities would generate the large majority of on-going annual costs for Placer Legacy. On-going program activity costs would be only five percent or less of total on-going costs.

After all lands were obtained and under management, annual costs for land management and program activities would peak at about $1.0 million per year under the low effort scenario, $2.4 million per year under the moderate effort scenario, and $3.5 million per year under the high effort scenario. The difference primarily reflects the number of acres managed under each scenario, although costs are not directly proportional. As described below, while the intensity of management effort is assumed to vary in proportion to the level of effort defined for each scenario, i.e., some per-acre cost factors are assumed to be higher for the moderate and high scenarios than in the low effort scenario, the cost estimates also account for cost efficiencies that would result from economies of scale. The per-acre management costs are assumed to be higher under the low effort scenario where smaller amounts of land would be managed, while the per-acre costs are assumed to be lower under the high effort scenario. To the extent they are a function of the number of acres under management, the annual costs of implementing Placer Legacy would be lower in the early to middle years of the program than the Year 30 estimate

presented in the table. The estimate in Table 5-1 reflects stable operations for the target number of managed acres identified for each scenario.

Elements of the Land Management Cost Analysis

The land management cost analysis is based on scenarios of land management effort developed to illustrate a range of possible options for Placer Legacy. The scenarios describe overall targets for land management in terms of acres of land by resource element and study area. Chapter III describes the Placer Legacy elements: agriculture, biological resources, outdoor recreation, cultural resources, scenic resources / urban separators, and public safety. Chapter IV describes the interaction between resource elements and study areas. The scenarios also incorporate targets accounting for overlap of resources—identifying the extent to which an acre of land might represent value for more than one resource element. (Chapter III, Section C outlines this approach.)

The different resource elements are associated with different cost factors for methods of obtaining public interest (depending on location within the county, extent of easement interest, and the nature of the easement agreement), for start-up and one-time planning and development costs, and for on-going operating and monitoring costs. Per-acre cost factors were developed reflecting the particular character of each resource element. The cost factors developed for Placer Legacy are the result of analysis of land sales transactions in Placer County, review of other studies and background documents, analysis of the experience and budgets of established land management entities, and consultation with knowledgeable County staff and other professionals working in the land management and resource conservation fields.

Table 5-2 presents the summary of land management costs by cost component and resource element for each scenario. The table also shows the distribution of total costs by resource element. The estimates in this table are a more detailed breakdown of the overall land management costs presented in Table 5-1.

Table 5-2. Land Management Cost Estimates for Placer Legacy Scenarios by Resource Element (costs in 2000 dollars)

Land Management Scenario	Agriculture	Biological Resources	Outdoor Recreation	Cultural Resources	Scenic Resources / Separators	Public Safety	TOTAL
OBTAINING PUBLIC INTEREST - TOTAL COSTS OVER 30 YEARS							
Low Effort	1,114,000	12,886,000	5,770,000	--	--	--	**$19,770,000**
Moderate Effort	15,375,000	27,451,000	18,806,000	30,000	9,023,000	2,060,000	**$72,745,000**
High Effort	49,952,000	42,764,000	24,571,000	69,000	36,419,000	2,164,000	**$155,939,000**
Percent of Total by Resource Element							
Low Effort	6%	65%	29%	0%	0%	0%	100%
Moderate Effort	21%	38%	26%	0%	12%	3%	100%
High Effort	32%	27%	16%	0%	23%	1%	100%
PLANNING, START-UP, AND DEVELOPMENT - TOTAL COSTS OVER 30 YEARS							
Low Effort	29,000	2,735,000	2,144,000	--	--	--	**$4,908,000**
Moderate Effort	427,000	4,434,000	12,842,000	13,000	76,000	868,000	**$18,660,000**
High Effort	1,096,000	7,281,000	16,094,000	25,000	263,000	781,000	**$25,540,000**
Percent of Total by Resource Element							
Low Effort	1%	56%	44%	0%	0%	0%	100%
Moderate Effort	2%	24%	69%	0%	0%	5%	100%
High Effort	4%	29%	63%	0%	1%	3%	100%
OPERATING AND MONITORING - ANNUAL COSTS YEAR 30 AND BEYOND							
Low Effort	3,000	435,000	567,000	--	--	--	**$1,005,000**
Moderate Effort	49,000	779,000	1,553,000	25,000	8,000	9,000	**$2,423,000**
High Effort	127,000	1,061,000	2,255,000	50,000	26,000	8,000	**$3,527,000**
Percent of Total by Resource Element							
Low Effort	0%	43%	56%	0%	0%	0%	100%
Moderate Effort	2%	32%	64%	1%	0%	0%	100%
High Effort	4%	30%	64%	1%	1%	0%	100%

SOURCE: Hausrath Economics Group, Thomas Reid Associates, and the Placer County Planning Department.

As noted above, obtaining the public interest in land—a mix of fee title and conservation easement interests—would be the largest single cost component of the Placer Legacy program. For the low effort land management scenario, most of the costs would be concentrated on biological resources; no fee title or easement interests in land for cultural resources, scenic resources, or public safety resources is proposed for the low involvement scenario. For the moderate and high effort scenarios, the costs of obtaining the public interest in land would be distributed progressively more broadly across the resource elements.

In all scenarios, other initial costs for planning, start-up expenses, and capital improvements would be concentrated in biological resource and outdoor recreation resource lands. These are the lands that would require the most intensive planning and the greatest level of capital investment, in either habitat restoration and enhancement or outdoor recreation improvements. Both the moderate and high effort scenarios incorporate substantial one-time investment in

outdoor recreation. Planning, start-up, and development costs for agricultural resources would be a relatively small component of costs in all scenarios because agricultural lands would most likely be protected using conservation easements that allowed continued agricultural production. There would be no Placer Legacy involvement in improvement of those lands. Similarly, the interest in scenic and public safety resources would be largely passive, requiring no other capital investment. Other one-time costs for cultural resources would be small because of the relatively small number of acres involved.

On-going costs also would be concentrated among biological resource and outdoor recreation resource element. In all scenarios, more than half of on-going costs would be for outdoor recreation, reflecting the higher degree of operating and maintenance expenditure associated with public access resources. Biological resources would claim 30 to 40 percent of on-going annual costs. The costs for adaptive management and easement monitoring would be higher for these lands than for other resources protected by easements (agricultural, scenic, and public safety).

Obtaining a Public Interest

Strategy

Under Placer Legacy, public interest in land resources is defined broadly to include fee title interest (all of the rights of ownership and control), conservation easements (a limited set of rights to the property, short of full ownership and control), and contracts for land management. The cost analysis assumes that much of the land resource would not actually be acquired by Placer Legacy. This would be the case particularly in the American River Canyon, Foresthill, and Sierra study areas where much of the land is in public ownership, and in areas where land values are particularly high, reflecting urban development potential, thereby limiting opportunities for large-scale conservation acquisitions. In these areas, Placer Legacy interest would be in contracts for land management and in land exchange activities, requiring no capital outlay. Land dedication as part of the entitlement process would also be part of the strategy for obtaining a public interest in some of these other areas.

Interests in land under Placer Legacy would be obtained following the implementation guidelines outlined in Appendix H, Open Space Land Acquisition Guidelines. Not all forms of acquisition have a land cost: interests in land (either easements or fee title) could be obtained by means of donations or dedications without direct capital outlay on the part of Placer Legacy. Where the interest would be obtained through a transaction with a willing seller, the cost of the land would be a one-time capital cost to Placer Legacy. For any particular parcel of land, the cost of a conservation easement is less than the cost of fee title interest, because the seller of the conservation easement retains title to the property and is free to use the land and continue to generate economic return from the land, subject to the provisions of the easement agreement.

Because it is a cost-effective means of protecting agricultural and open space resources and because many existing agricultural practices in Placer County are compatible with biological resource requirements and with scenic, urban separator, and public safety goals of Placer Legacy, much of the public interest for agricultural resources is expected to be in the form of conservation easement agreements. Because of the higher level of land management required and because of the desire to provide public access, most of the land obtained for outdoor

recreation and cultural resource purposes would be acquired in fee title. Table 5-3 shows the assumptions for types of land interests by element.

Table 5-3. Assumptions For Interests In Land By Element

Element	Fee Title	Easement
Agriculture		100%
Biological Resources	50%	50%
Outdoor Recreation	70%	30%
Cultural Resources	100%	
Scenic Resource/Urban Separators		100%
Public Safety Resources		100%

SOURCE: Thomas Reid Associates and Hausrath Economics Group.

Land Value Assumption

Most of the land cost factors developed for the Placer Legacy cost analysis are based on analysis of real estate transactions in Placer County over the last decade. A database of transactions from DataQuick was used in this analysis. The primary source of the DataQuick information is the County Assessor's Office. The land value assumptions for areas in which the record for transactions similar to those expected under Placer Legacy is limited were provided by the Placer County Planning Department—the value assumptions reflecting per-acre values evident in current land transaction offers and negotiations in which the County is a participant.

The goal of the DataQuick transaction analysis was to develop average estimates of the cost to acquire fee title interest in land that satisfied the resource conservation targets outlined for Placer Legacy. To develop land value estimates representative of the types of parcels that would be acquired entailed sorting out transactions that did not match certain location or land use parameters. Initial criteria included land use: the transactions analyzed covered parcels with the following use designations (according to the Assessor's use code): vacant, unassigned; vacant, irrigated farm; orchards, vineyards; rice crop; poultry and small animals; vacant, dry farm; timberland, unrestricted; timberland, zoned timberland protection zone; CLCA (California Land Conservation Act or Williamson Act) restriction, non-renewal; and CLCA restriction, farm land. Transactions were sorted by location, according to the Placer Legacy study area boundaries identified in Map 4. We evaluated transactions in the following study areas: Agricultural Valley, South Placer Urban (unincorporated area only), Sheridan / Garden Bar, Loomis Basin, Auburn Bowman, and the Martis Valley area of East Slope Sierra.

Transactions involving small parcels (less than 20 acres) were excluded from the database for land value analysis. Most of those smaller parcels had the "Vacant – Not Assigned" use code designation; the land values implied indicated valuation on the basis of residential development potential.

For each study area, we calculated sale values per acre for each transaction and, on a weighted average basis, for each year and period of years. (The latter analysis evaluated real increases in land values over time.) Stratifying the database by study area, no systematic variance according to type of farming activity was evident; the study area distinction captured those differences.

Moreover, many of the parcels were simply designated as agricultural use, either "farmland" or "non renewal", by means of the California Land Conservation Act (CLCA) restriction code. With that designation, there is no indication of the type of farming activity taking place on the land.

Even after accounting for the smallest parcels, parcel size remained a significant variable influencing average sale values. In the Agricultural Valley, Sheridan / Garden Bar, and Loomis Basin, the average values for the larger parcels were about 70 percent of the values for all parcels. There was no similar discount in the Auburn / Bowman study area where the range of parcel sizes is much narrower. Because Placer Legacy would be likely to focus acquisition efforts on large contiguous tracts of land, the average values used in the cost analysis reflect the averages for larger-scale transactions. Table 5-4 shows the per-acre land value assumptions used in the Placer Legacy cost analysis.

Table 5-4. Land Cost Per Acre, By Study Area
(Fee Title Interest; Values in 2000 dollars)

Study Area	Fee Title Cost Per Acre
Agricultural Valley	$1,800
South Placer Urban	$6,000
Sheridan / Garden Bar	$2,600
Loomis Basin	$4,500
Auburn / Bowman	$6,000
American River Canyon	$2,400
Lower Sierra, Foresthill, West and East Slope Sierra	$1,250

SOURCE: Hausrath Economics Group and the Placer County Planning Department.

The following points provide some context for the estimates from the transactions database:

- Land values in the Agricultural Valley are lower than they are elsewhere in the ex-urban parts of South and Mid Placer County. The difference reflects relatively lower value agricultural activities and, on average, larger parcel sizes. The final set of transactions used to develop the estimate of $1,800 per acre excluded transactions of 80 acres or less. Those smaller parcels, with higher values reflecting value as ranchettes or hobby farming, increase the average price by almost $1,000 per acre. The per-acre values for parcels greater than 80 acres ranged from $70 per acre (for rice crop land) to $6,100 per acre for irrigated farm land. Within that large range, two-thirds of the transactions averaged between $1,000 and $3,000 per acre. The average parcel size was 313 acres.
- The South Placer Urban land value assumptions reflect values in unincorporated South Placer—south of Baseline Road. Data analysis of a relatively small number of transactions indicated a wide range of land values—from $206 per acre to over $30,000 per acre, with a weighted average over the decade of $13,400 per acre. This part of the unincorporated area has been the target of substantial land speculation over the last decade as it became one of the few parts of unincorporated South Placer to be designated for urban development in the 1994

General Plan Update. The value assumption shown in the table and used in the cost analysis is based on recent Placer County experience in a transaction for park land in the Dry Creek area.

- In the Sheridan / Garden Bar study area, although existing land use characteristics are similar to those in the Agricultural Valley, average land values are higher, apparently a function of smaller average parcel sizes. Given the predominance of the agricultural use designations with 10, 20, and 40-acre minimum lot sizes, we used 40 acres as the cut-off for the final set of land use transactions. As in the Agricultural Valley, including the smaller parcels added about $1,000 per acre to the average land value. Also as in the Agricultural Valley, there were extremes in the average land values over the decade; per-acre values for the larger parcels ranged from $700 per acre to $13,000 per acre. In Sheridan / Garden Bar, 60 percent of the transactions fell between the values of $1,000 per acre and $4,000 per acre. The average parcel size was 146 acres.
- The higher land values in the Loomis Basin reflect less agricultural land use and smaller parcel sizes. Over the decade, only one transaction involved Williamson Act land. For most transactions, the use code was "Vacant – Unassigned". The range of average sale values was extreme, with values for the few transactions involving land categorized as "dry farm" averaging under $1,000 per acre, while other transactions including orchard and vineyard land, Williamson Act contracts, and Vacant – Unassigned averaged $12,800 per acre. The $4,500 per acre estimate reflects a weighted average covering this variety of potential acquisition situations. The average parcel size was 83 acres.
- Vacant land transactions in the Auburn-Bowman area exhibit many of the same characteristics of those in the Loomis Basin. Not much of the land sold is classified as farmland, and parcel sizes are substantially smaller than in either the Agricultural Valley or Sheridan / Garden Bar. Over the course of the decade, average land values have been very stable at around $6,000 per acre overall. Seventy percent of the transactions average between $2,000 and $6,500 per acre. The average parcel size was 77 acres.
- Land values are substantially lower in the eastern parts of the County, where urban development potential is limited and agricultural productive values are lower than is the case around Auburn and to the west. The database contained few transactions for the eastern parts of the County; parcels are generally larger and many are publicly owned or owned for timber production and title is not often transferred. Analysis of a 1997 transaction involving almost 600 acres in the Martis Valley area indicated an average land value of about $1,250 per acre. The assumption for the American River Canyon study area reflects a higher value assuming a substantial premium for the views associated with any development potential on that land.

The land values used in the cost analysis are estimates for planning purposes. The price paid for land obtained by Placer Legacy would be negotiated in each willing seller transaction, typically based on appraisals and the expertise of land management professionals. The values in Table 5-4 do not represent a target, a ceiling, or a floor for land values.

Changes in Land Values Over Time

The cost analysis assumes no real increase in land values over time; the analysis assumes land values keep pace with inflation. Real increases are not evident in the data used to develop the estimates. We evaluated the change in per-acre land values from the database of transactions going back to 1990. The decade of the 1990s included a boom in land prices in the early part of the decade, a decline in prices toward the middle of the decade, followed by an upward trend toward the current boom-period. In all the study areas analyzed, average land values were higher in the early years of the decade than they are now; the trend in the late 1990s is clearly upward, however. We also analyzed a dozen parcels where there was information about a prior sale. The changes in sale values showed no consistent pattern. The land values used in the analysis generally reflect the average over the entire decade, weighted somewhat more heavily toward the current period.

Easement Value Assumptions

In practice, easement market values would be determined by an appraisal of the property evaluating the value of the rights foregone by the owner of the fee title interest as a result of the easement. Research into the typical values for conservation easement purchases reveals a wide range of values reflecting the individualized and negotiated character of such transactions. The experience of the California Department of Fish and Game's (CDFG) conservation easement program for Central Valley wetlands is that easement values range from 25 percent to 75 percent of fee title value. The Marin Agricultural Land Trust (MALT) cites agricultural easement prices ranging from 25 percent to 50 percent of unrestricted market value, averaging between 40 percent and 50 percent.

The assumptions used for the purpose of developing land cost factors for the Placer Legacy cost analysis are that, on average, purchase prices for conservation easements on agricultural land would be 50 percent of the fee title purchase price; purchase prices for biological conservation easements and scenic conservation easements with more restrictions would be 75 percent of the fee title purchase price, consistent with the greater degree of restriction on use and productive value associated with those types of easements.

As Placer Legacy is implemented, all transactions would be negotiated with willing sellers and tailored to the characteristics of each parcel. All easement transactions would be based on a formal appraisal of each property under consideration. The assumptions about easement value used in the cost analysis are conservative factors for the purposes of the estimates. They do not represent a ceiling or floor to the actual costs that might be paid.

Transaction Costs

Transaction costs are estimated at five percent of the total transaction value. The costs include title search, appraisal, title insurance, other closing costs, and recording any deed restrictions for conservation easement acquisitions.

Planning, Start-up, and Development Costs

This component of the cost analysis represents those one-time costs, in addition to land acquisition, required for responsible land and resource stewardship under Placer Legacy. The

cost factors for this component account for the need to develop land management plans for all lands managed by Placer Legacy. The management plans would define the nature of the public interest in the resources and outline goals, objectives, and actions for maintaining that public interest over time. Other start-up costs include capital investment in habitat enhancement and restoration for biological resources, and in public access improvements and other outdoor recreation facilities.

Start-up and development cost factors used in the analysis are listed below. The range reflects differences by study area depending on the nature of the resources in that area.

- $25 - $60 per acre for agricultural resources,
- $110 - $2,400 per acre for biological resources,
- $50 - $90 per acre for outdoor recreation resources,
- $500 per acre for cultural resources,
- $10 per acre for scenic resources / urban separators, and
- $500 per acre for public safety resources.

The basic cost factors were adapted to the characteristics of each scenario to account for cost efficiencies due to economies of scale. The per-acre cost factors for the low effort scenario are higher than the averages listed above, while the per-acre cost factors for the high effort scenario are lower.

Planning and start-up costs are also assumed to be additive across resource elements. In this way, the cost analysis accounts for the fact that some acres would serve several resource purposes and would be managed for those multiple purposes. For example, for estimating purposes, the start-up cost for an acre of agricultural land that also contained significant biological resources and provided scenic value would be the sum of the agricultural resource cost, the biological resource cost, and the scenic resource cost.

In addition to the planning and start-up costs, capital costs for outdoor recreation improvements for intensively developed properties are estimated assuming per-acre improvement costs of $125,000 per acre, based on Placer County parks experience. This cost factor is applied to only a limited number of outdoor recreation acres in each scenario.

Operating and Monitoring Costs

This land management cost component represents the on-going operating costs of land stewardship. The costs include maintenance of outdoor recreation and cultural resource facilities and areas of public access, adaptive management of biological resource lands, and monitoring of easement conditions, as well as administrative costs. In the cost analysis, these costs are presented as annual estimates.

The basic annual cost factors for each resource element are listed below. The range reflects variation in the nature of the resources by study area and by level of effort. As in the case of planning, start-up, and development costs, the cost analysis accounts for efficiencies associated

with operating on and monitoring large tracts of land and larger numbers of acres. The per-acre factors for each resource element are also additive for areas in which the land under management serves several resource goals simultaneously.

- Approximately five dollars per acre for agricultural land,
- $26 – 85 per acre for biological resource land,
- $89 - $385 per acre for outdoor recreation land,
- $1,000 per acre for cultural resource land,
- One dollar per acre for scenic resources and urban separators, and
- Five dollars per acre for public safety resources.

The on-going operating costs for outdoor recreation and cultural resources were derived from evaluation of Placer County parks maintenance budgets and the budgets of regional open space districts that have substantial land management responsibilities. Annual operating and maintenance budgets vary substantially on a per-acre basis, depending on the intensity of the land management required and the level of education and interpretive programs offered. The averages presented above are based on three per-acre cost factors developed to account for varying degrees of management, stewardship, and public access for these resources:

- $700 per acre for intensively managed outdoor recreation land allowing substantial public access,
- $70 per acre for the balance of outdoor recreation land, and
- $1,000 per acre for cultural resource land.

Summary of Land Management Cost Estimates

Table 5-5 summarizes the land management costs for low, moderate, and high scenarios. The table shows total costs for the various cost components—obtaining a public interest (initial capital costs), start-up, planning, and development (one-time and other capital costs), and on-going operating and monitoring costs. Overall average per-acre factors are derived by dividing the total cost for each component by the total acres targeted for each scenario, accounting for the overlap of land serving multiple resource conservation purpose. (The target acres are those shown for the three scenarios in Chapter III.)

Table 5-5. Comparison of Total and Per-Acre Costs by Land Management Scenario (costs in 2000 dollars)

Land Management Scenario	Target Acres Accounting for Overlap	
Low Effort	7,600	
Moderate Effort	30,000	
High Effort	75,000	
Cost of Obtaining Public Interest Over 30 Years		
	Total	**Per Acre**
Low Effort	$19,770,000	$2,601
Moderate Effort	$72,746,000	$2,425
High Effort	$155,938,000	$2,079
Planning, Start-up, and Development Cost Over 30 Years		
	Total	**Per Acre**
Low Effort	$4,908,000	$646
Moderate Effort	$18,659,000	$622
High Effort	$25,539,000	$341
Operating and Monitoring Costs in Year 30 and Beyond		
	Annual Costs	**Annual Cost per Acre**
Low Effort	$1,005,000	$132
Moderate Effort	$2,423,000	$81
High Effort	$3,527,000	$47

SOURCE: Hausrath Economics Group, Thomas Reid Associates, and the Placer County Planning Department.

The differences among scenarios in the per-acre cost of obtaining a public interest in Placer Legacy lands reflects the different proportions of the various resource elements in the scenarios. For example, a scenario with proportionally more agricultural lands (assumed to be 100 percent easement interests) has lower average costs per acre than a scenario with proportionally more outdoor recreation resources (assumed to be mostly fee title interests with 30 percent easement interests). Another relevant factor influencing this average comparison among scenarios is that the mix of lands across study areas with different average land values varies among the scenarios.

A noteworthy difference for the start-up, planning, and development cost component is the assumption about capital costs for developing outdoor recreation facilities. Only a very small amount of such development is assumed for the low effort scenario (an investment of less than two million dollars). The dollar amount is substantially greater in the moderate- and high-effort scenarios: a $12 million to $15 million capital cost. Spreading a relatively similar dollar amount over twice the overall acres in the high-effort scenario, compared to the moderate effort, results in markedly lower per-acre costs for this overall comparison.

Differences between the moderate- and high-effort scenarios in per-acre averages for start-up, planning, and development costs and for on-going operating costs are attributable to the substantial cost efficiencies assumed with managing the larger amount of land in the high-effort scenario. The cost efficiency is assumed to be greater once a substantial acreage threshold is

reached and is therefore not as significant a factor in the difference between the low-effort and moderate-effort scenarios.

SECTION C: IMPACT ON COUNTY REVENUES OF ALTERNATIVE MECHANISMS FOR PROTECTING OPEN SPACE

The potential fiscal impact of the Placer Legacy program is difficult to gauge. The following discussion outlines the direct impacts on property tax and property transfer tax revenues from protecting land in perpetuity through various measures, including obtaining fee title interest or conservation easement interest, mitigation banking, and Williamson Act contracts. In addition to the direct loss, several additional means through which County revenues and expenses could be indirectly affected are also described.

County Revenues and Land Protection Mechanisms

Placer Legacy would affect the County's future revenue stream in many ways. The impacts can be subdivided into direct and indirect, as well as immediate and long-term effects. Direct impacts are those attributable to placing property into trusteeship; indirect impacts are those changes in fiscal flows from nearby properties. Immediate impacts are changes in tax revenues that are immediately precipitated by trusteeship; long-term impacts are any opportunity costs of the program and longer-term benefits such as long-term property value enhancements and/or lower public service costs.

There are three different components of potential Placer Legacy land protection mechanisms that have different revenue implications for the County. One component describes the status of much of the land where a public interest would be obtained through the Placer Legacy program; fee title or conservation easement interest in that land would be obtained and held by a land steward or trustee. The second component relates to a subset of that land: any large tracts of land obtained and developed as mitigation banks. The third component is the offset to county revenue loss associated with agricultural land protection offered though Williamson Act contracts. The different revenue consequences of each component are described below.

Conservation Trusts and Tax-Exemption

Conservation trusts are typically created by either the public sector or by private, non-profit organizations. In California, the largest public sector land conservation program for privately held lands is the Williamson Act program (California Land Conservation Act). Williamson Act lands constitute roughly one-half of all agricultural lands in the state. Other public sector examples are open space and park districts. The Nature Conservancy and the California Rangeland Trust are two examples of non-profit organizations that operate as conservation trustees. Although the objectives of these trusts vary from organization to organization, in general the goal of these trusts is the long-term, permanent protection and stewardship of natural areas.

For both property tax and property transfer tax, a critical issue in determining the impact of Placer Legacy is the legal status of the party obtaining the fee title interest or easements. The Offices of both the Recorder and Assessor authorize exemptions to tax payments. Property transferred to the County or other public agency is fully exempted from recording fees, transfer

tax, and property tax under the rules of those agencies. When property is transferred from a private party to the County, whether as fee title or as a conservation easement, there are no recording fees, transfer taxes, or property taxes collected. If the County were to serve as steward of the Placer Legacy lands (including any mitigation banks), loss of tax revenue from these lands would be complete for the duration of the trusteeship.

If the lands were to be held in trust by a private, non-profit group, the direct loss of tax revenue would be more limited. There is no exemption granted non-profits for recording fees or transfer taxes. Non-profits must make an annual application for exemption from property taxes under the "Welfare" provisions outlined in Section 214.01 of the Revenue and Taxation Code. To be exempted from property taxes both the non-profit organization and the property must meet strict standards established in the Code. Property held for mitigation banking would not meet the welfare requirements of the law and would be taxable even if held by a non-profit (see mitigation banking discussion below).

Immediate Loss

The immediate fiscal effect of transferring lands to a conservation trustee would be the loss of property tax revenue from conserved lands as titles and easements are added to the trust. As noted above, when fee title is held by the public sector or, in most cases, by non-profit organizations, property tax revenues would decline by the full extent of existing payments. For conservation easements, the reduction in revenue would depend on a variety of factors and could vary from no reduction in revenues to the complete elimination of revenues (although a 100% loss is unlikely). Only Williamson Act contracts on agricultural land would provide mitigation for this loss of property tax revenue (see discussion below).

The potential loss of revenue is best viewed in terms of magnitude and proportion. The objective of Placer Legacy is permanent protection of substantial agricultural and open space resources in the County. Typically this means maintaining properties as wild lands or in existing low intensity agricultural use. As a consequence of Proposition 13, lands in longstanding ownership and in these uses will have relatively low existing property tax assessments. The magnitude of direct revenue loss from Placer Legacy interests in properties of this description, whether complete or partial, would likely be relatively small. For more recently transferred property, and particularly for those properties that have development potential which is reflected in the assessed value, the magnitude of the loss of revenue would be greater.

When the transfer of property rights is less than complete, as in the case of conservation easements, the proportion of loss is also an issue. The loss in assessed value is computed on the basis of the diminution of value in the highest and best use specified on the tax roll. For example, when a conservation easement is recorded that limits land use to cattle range and when the property is assessed as rangeland, there will be no reduction in assessed value or property tax revenue. In addition, when a conservation easement is recorded on a portion of a property where use consistent with the assessed use is not possible, there is also no reduction in property tax revenues. This latter circumstance could be the result of natural conditions, such as an un-arable portion of a property assessed for agricultural value, or law, such as critical wildlife habitat on a parcel assessed for residential development. In these cases, a conservation easement on the un-arable land or the wildlife habitat would not reduce the assessed value of the property. By

contrast, the creation of a conservation easement on a property that was recently sold at a price that reflects a highest and best use in intensive development would substantially reduce the assessed value of the property and associated tax receipts.

Long-term Loss

The long-term losses from Placer Legacy land interests would stem from the loss of transfer taxes and otherwise expected increases in assessments attributable to normal turn-over and, particularly, land speculation and development. Such effects would be the opportunity costs of the conservation program.

Off-setting Indirect Benefits

A conservation trust could also provide indirect revenue benefits to the County. Tracts of land with high development potential often contain areas with watercourses, irregular topography, or other elements that make them marginally developable. Although such areas may have significant aesthetic, historic, cultural, or recreational value, they are also expensive for a development to maintain. By using Placer Legacy as a repository for such lands, developers would be encouraged to preserve these resources. Through the reduction of developer cost and the preservation of natural amenities, revenue-producing development could be stimulated while valuable natural resources are preserved. Higher density development is also likely to reduce the public service capital and operating cost side of the fiscal equation. Furthermore, comprehensive implementation of the open space program would be likely to result in higher property values (and therefore higher property tax revenues) over time than would be expected without Placer Legacy's contributions to enhancing the quality of life in the County. (See the following discussion of economic benefits.)

Land exchanges, as a tool to obtain property rights, could also increase County revenues. The Forest Service, Bureau of Land Management, and other state and federal agency routinely use land exchanges to enhance the value of their holdings. Such exchanges simultaneously enhance the value of the value of private holdings and require little or no cash outlay. If the County were to exchange publicly owned lands with high development value and low conservation value for lands with low development value and high conservation value, the net effect would be to stimulate development and thereby increase County revenues.

Mitigation Banking

Mitigation banking would provide both direct and indirect positive impacts on County revenues. Because mitigation banking is a relatively new practice, the State Board of Equalization (SBOE) is currently developing guidelines to standardize appraisal rules for tax assessment purposes in California. Mitigation banks create value in two distinct ways: development of the mitigation bank results in an assessed value that in the short run would be significantly higher than the land's predevelopment value (though only if the bank is not publicly owned) and the developments purchasing mitigation bank credits would also have a higher value. The SBOE has determined that the creation of wetlands under the Sacramento-San Joaquin Valley Wetlands Mitigation Bank Act of 1993 will be treated as new development and the property will be assessed as new construction. The assessed value of such wetlands will then decline as credits are acquired by developers. As the credits are acquired by developers, the value of developing

land will also reflect the added value created by offsite mitigation. Although the specific method of valuing both value increments is yet to be established by the SBOE, the revenue impact of mitigation banks may be substantial.

Mitigation banking also would have important indirect positive impacts on County revenues. Otherwise developable property that contains environmentally sensitive resources would have greater speculative and development value if a mitigation bank were in place to facilitate development. This would be particularly true in the case of properties where the relatively small amount of sensitive resource lands makes on-site mitigation a less desirable option. In those cases, the availability of a mitigation bank would accelerate the entitlement process thereby reducing the time and costs involved in the development process. More developable property would reach the market as a result. Through such indirect mechanisms, County property tax and transfer tax revenues might be higher than otherwise expected.

Because the authorizing codes specifically prescribe that the mitigation bank provide maintenance of the newly created wetlands in perpetuity, the price of mitigation credits includes this ongoing cost. Through the mitigation banking mechanism, large areas of high ecological value can be created and maintained through the private sector, acting alone. Wildlands, Inc., a Citrus Heights based firm, has created wetlands in Placer County for mitigation banking. Such development will have the effect of increasing the property tax base while, at the same time, expanding the supply of sensitive habitat.

Williamson Act Contracts

The Williamson Act (California Land Conservation Act of 1965) and related Farmland Security Zone legislation (which is also referred to as FSZ or Super-Williamson) are cost effective vehicles for the preservation of farmland and open space. They are a useful complement to an agricultural easement program, providing a means by which the County could recoup some the property tax revenue loss associated with permanent agricultural easement restrictions. Under the provisions of these measures, the landowner and the County enter into a contract restricting the use of agricultural land in areas designated for agricultural preservation by the County. In exchange for limiting the use of the land to agricultural production for a period of not less than 10 years (20 years under the FSZ program), the landowner receives a reduction in property tax assessment. Under the Williamson Act, land under contract is assessed annually for its income-producing value in agricultural production. Under the FSZ, that assessed value is limited to 65 percent of the Williamson Act value. As a consequence of these assessment practices, the County gives up some property tax revenue in exchange for the preservation of agricultural land and agricultural production activity. The loss of property tax revenue is partially offset by an annual subvention from the state of $5 per acre for prime agricultural land and $1 per acre for other lands under Williamson Act or FSZ contract.

Although preservation is not in perpetuity as it is in the case of agricultural conservation easements, from a fiscal perspective there are benefits of using these vehicles for agricultural land conservation. The use restrictions directly result in only a partial loss of property tax revenues. The annual subvention of $5 or $1, depending on the agricultural quality of the land under contract, is a significant offset that provides fiscal mitigation for the duration of the contract.

Conclusion

The direct and immediate fiscal consequence of Placer Legacy would be on property tax and property transfer tax revenues. Obtaining property for a public or non-profit land trust, whether through transfer of fee title, conservation easement, or with associated Williamson Act contract, would result, under most circumstances, in reduced property tax and property transfer tax receipts to the County. This would be true for rights purchased as well as rights obtained through donation. On the other hand, land exchanges and creation of mitigation banks would most likely result in higher property tax and transfer tax receipts than otherwise expected.

The long-term effects of the program are even harder to estimate. There would be some long-term revenue losses associated with placing land in a permanent conservation trust. If development were to occur at higher densities than otherwise expected, public service costs would likely be lower. Another important consideration is the potential for offsetting market responses, such as higher property values due to the amenity value of increased open space. As with the immediate effects of Placer Legacy, programs that enhanced value and accelerated development, such as mitigation banking and land exchanges, would serve to offset any losses from land conservation. Whether, in total, the Placer Legacy program would have the effect of increasing or decreasing revenues is a function of the value of property rights transferred and the relative sizes of the elements of this program.

SECTION D: ECONOMIC BENEFITS OF PROTECTING OPEN SPACE IN PLACER COUNTY

Overview

There is an extensive literature on the economic benefits of land conservation and open space protection.. The primary conclusions of the research are as follows:

- Preserving open space and habitat in an integrated regional system enhances the **quality of life** for residents and businesses—enhances biological diversity, environmental quality, rural and scenic character, and recreational and educational assets.
- Local government and property owners benefit from **increased property values and lower infrastructure and service costs** associated with communities that curb sprawl and protect open space.
- **Economic development** benefits from a regulatory component that streamlines the development process. In addition, public and private commitment to providing a superior quality of life enables businesses to attract and retain high quality workers. Protecting agriculture and scenic resources enhances the visitor experience and increases tourist revenues.
- Owners of agricultural land receive **economic value** for their land as a habitat and open space resource, and the **agricultural economy is protected** by reducing speculative pressures for urban development on agricultural land.

- With respect to a regulatory component, reducing the time and cost of project-by-project reviews results in **cost savings** for local government, federal and state permitting agencies, and project proponents.

This section presents documentation from some of the key sources for evaluation of the economic benefits of open space generally, as it would apply to the Placer Legacy options implementing current General Plan policies. The section concludes with discussion of the economic benefits of establishing a countywide Habitat Conservation Plan (HCP) and Natural Communities Conservation Plan (NCCP) to provide regulatory compliance with state and federal endangered species laws. (See Chapter III, Section D for description of regulatory compliance opportunities under Placer Legacy.)

Documentation of the Economic Benefits of Open Space Conservation

In *The Economic Benefits of Parks and Open Space*, (The Trust for Public Land, 1999) Steve Lerner and William Poole describe the ways in which open space conservation results in net revenues to the public sector and increased returns on private sector investment. The report summarizes the results of case studies to conclude to following:

- Open space conservation curbs suburban sprawl by promoting higher density development patterns. This strategy is economically beneficial because as density increases, tax-supported infrastructure and services are distributed over a smaller geographic area, thus resulting in lower per capita costs. While conventional suburban development often results in greater infrastructure and service expenditures than tax revenues, open space has been shown to have the opposite effect, in many cases resulting in net revenues.
- Open space serves as a catalyst for new investment. Quality of life and, in particular, the availability of parks and open space, has become an increasingly important factor in business location decisions. The TPL report cites the conclusions of the Sierra Business Council's *Planning for Prosperity* project: the large majority of residents and businesses surveyed in the Sierra Nevada area agree that wildlands and open space are significant factors attracting businesses to the region. In a follow-up effort to help decision-makers to understand the broad base of assets that contribute to the region's economy and well-being, the Sierra Business Council published the *Sierra Nevada Wealth Index*. The 1999-2000 edition documents trends and the current status of numerous indicators, placing financial, social, and natural capital on an equal analytical footing. Natural capital indicators include: patterns of public and private land ownership, enrollment in Williamson Act contracts, cattle production, acreage of high value crops, protection for key habitat resources, listings of threatened and endangered species, timber production, and air and water quality.
- Open space is an important part of urban revitalization efforts. Urban parks serve as attractive gathering spaces and architectural focal points. New parks typically result in increased rents and occupancy rates in surrounding properties. Parks also play an important role in revitalizing depressed urban residential neighborhoods by acting as an incentive for existing middle class families to

remain in these neighborhoods, and for new middle class families to settle in them.

- Open space supports tourism. Tourism and outdoor recreation are among the largest and fastest growing sectors of the U.S. economy. Many communities have generated a significant amount of new jobs and tax revenues by preserving and enhancing their natural resources and positioning themselves as attractive destinations for tourists and outdoor enthusiasts.
- Open space supports agriculture, a critical part of the country's economy. Farm receipts totaled $202.3 billion in 1997, generating approximately $50 billion in farm income that was cycled through local communities. A 1998 Fresno report found that each acre of irrigated agricultural land produced between $6,000 and $12,000 for the local economy.
- Open space along floodplains minimizes damage caused by floods, estimated to be $4.3 billion annually in the U.S. Protecting floodplains also creates economic benefits by providing open space for recreation, wildlife habitat, and farming.
- Open space safeguards the environment. Development in watersheds results in increased pollution of drinking water supplies. Communities are discovering that it is less costly to purchase development rights in watersheds than it is to clean already contaminated water supplies. Other economic services provided by open spaces include degradation of organic wastes, filtration of pollutants from air, soil and water, buffering of air pollutants, moderation of climate change, and conservation of soil and water. The estimated annual value of Atlanta's tree cover for improving the city's air quality is $15 million, and for preventing the need for stormwater retention facilities, $883 million. The estimated value of all economic benefits generated by a single acre of wetland is $150,000 to $200,000.

In a 1998 report published by the Lincoln Institute of Land Policy, *Open Space Conservation – Investing in Your Community's Economic Health*, John Tibbetts reviews how planning, regulation, and public and private investment have been used to protect open space resources. The report reviews research documenting how economic and fiscal implications of conservation are measured for input to policy-making. Alternative approaches for estimating the economic value of open space reveal an array of potential economic arguments for land protection.

- Fiscal impact analysis compares the costs of infrastructure and services required by a given development type with the tax revenues it generates. Studies have shown residential development to result in net fiscal losses, commercial development to result in net fiscal gains, and open space to be neutral. However, results can vary according to each community's specific circumstances.
- The real estate market value approach places a value on open space according to the price commanded in a market transaction. While some claim that land is worth little unless it can be developed, others argue open spaces have value aside from their development values.
- The enhancement value approach assigns value based on the degree to which open spaces increase the value of nearby properties. Many studies, such as those

included in the compilations described below, have shown properties to have higher values when they are located closer to parks, wetlands, and open space. However, other experience has shown that parks must be well maintained to have a positive affect on property values.

- The agricultural production value approach measures open space value in terms of the value of the agricultural or animal products it supports, and by the indirect economic value of associated jobs and income.
- The natural system value approach measures the value of open space according to its qualitative environmental value, such as a wetlands value in flood storage, wildlife habitat, and pollution filtration. Non-market values such as environmental value, scientific value, aesthetic value, genetic diversity value, and historical value are very difficult to measure directly in monetary terms. One method involves consideration of opportunity costs. For example, communities have decided it is more prudent to preserve wetlands than to pay the costs of flood damage or artificial filtration.
- Contingent valuation assigns value based on survey respondents' "willingness to pay" to gain or avoid losing access to open space. Other methods evaluate travel costs and recreation spending as a means of establishing the value of open space and outdoor recreation resources to the public.

A 1995 report and analysis produced by the American Farmland Trust (AFT), *Alternatives for Future Urban Growth in California's Central Valley: The Bottom Line for Agriculture and Taxpayers*, documents the potential costs associated with farmland conversion to accommodate projected growth in the Valley. Through economic and fiscal impact analysis of alternative development patterns, the AFT concluded that compact development patterns that conserved farmland would, over 50 years, reduce the potential economic loss associated with conversion of agricultural resources by about $72 billion and would save taxpayers about $29 billion in service costs. Agricultural losses associated with urban development would include loss of productive acres, increased risks and costs and lower productivity for lands remaining in production around urbanizing areas, loss of commodity sales, and loss of related sales of suppliers, processors, and other agricultural support businesses. The fiscal impact analysis determined that the public service and infrastructure costs of serving more compact urban development would be substantially less than the costs of serving development that consumed more land to accommodate that same amount of growth.

Beyond Sprawl: New Patterns of Growth to Fit the New California, jointly produced in 1995 by the Bank of America, the California Resources Agency, the Greenbelt Alliance, and the Low Income Housing Trust Fund, presents a strong case for the economic benefits of sustainable development patterns. The report documents the costs of sprawl to taxpayers, businesses, residents of new suburbs, residents of central cities and older suburbs, farmers, and the environment. The report advocates a development model that provides for sustainable economic growth—providing certainty in where new development should and should not occur, streamlining state and local permitting where development is allowed, encouraging more efficient use of land that has already been developed, allocating the full marginal cost of

development to development on the metropolitan fringe, coordinating local land use policies, and developing collaborative relationships among the various stakeholders.

The Trust for Public Land and the Land Trust Alliance have published two compilations of reports and articles about the value of open space, including anecdotal evidence of the economic benefits of parks, recreation, wildlife, and open space with respect to property values, economic revitalization, recreation, historic preservation, natural and scenic resources, agency expenditures, and health. (*Arguments for Land Conservation: Documentation and Information Sources for Land Resources Protection*, The Trust for Public Land (1993) and *Economic Benefits of Land Protection*, Land Trust Alliance (1994).) The following are some samples of key data.

- Property values increase in areas adjacent to trails or greenbelts, resulting in property taxes that can be used to offset acquisition costs. In 1986 in Salem, Oregon, urban land adjacent to a greenbelt was found to be worth approximately $1,200 more per acre than urban land 1,000 feet away from the greenbelt, all other factors being equal. A 1978 Boulder, Colorado study found that property value decreased by $4.20 for every foot of distance from public open space, up to 3,200 feet.
- The increase in nearby property values attributable to park and open space development may generate enough new property tax revenues to more than offset the costs of open space acquisition. The Boulder, Colorado greenbelt resulted in a $500,000 annual property tax increase, making it possible to recover the initial purchase price of $1.5 million in just three years.
- Outdoor recreation opportunities and cultural resource sites attract recreation spending and keep local recreation spending from leaking outside a community. A 1990 report stated that the recreation and leisure industry was the third largest segment of the California economy and that Californians spent over $30 billion per year on recreation and leisure, accounting for 12 percent of total personal consumption expenditures. A 1978 study found that for every dollar spent by the East Bay Regional Parks District, three dollars were returned to the community in primary or secondary benefits. Thirty five percent of respondents to a 1993 study planned to visit a historical site while on vacation. Another study found that visitors stay a half-day longer and spend $62 more at historic sites than at other locations.
- Corporate real estate executives cite choosing a location that will help attract and retain key personnel as the number one factor in selecting office locations. Recreational opportunities rank at the top of the list of quality of life factors influencing business location decisions. Pueblo, Colorado credits its investment in parks and trails as a major factor in turning around its economic decline.
- Land conservation is often less expensive for local governments than suburban-style development. A 1989 study showed that residential lands required $1.12 to $1.36 for every dollar contributed, while agricultural land required only $0.21 to $0.48. In 1988, the City of Boulder estimated that the costs of providing public services are $2,500 to $3,500 per acre for developed land, but only $75 per acre

for open space. A Virginia study found that for every dollar of revenue collected from residential land, $1.25 is spent on county services.

- Open space conservation is the intended by-product of dense cluster development. Due to its lower infrastructure costs, this development type has been proven to more cost effective than conventional suburban style development. A National Association of Home Builders study found cluster development to cost 34 percent less than conventional development.
- Communities that implement responsible growth patterns promoting quality of life and fiscal viability through open space and agricultural preservation have been shown to improve their municipal bond ratings.
- Preserving wetlands for groundwater recharge and water purification is more cost effective than achieving these functions through man-made means. Residents of Johnson County, Kansas decided to address the region's flooding problems by spending $600,000 on a greenways network instead of $120 million on a stormwater control system.
- Use of sensitive areas for open space or recreation purposes can reduce potential property damage and loss of life caused by flooding, slope instability, fire damage, and earthquakes. Prohibiting development in sensitive areas saves communities from having to pay the costs associated with floods, landslides, and other natural calamities.
- Agencies that manage land create jobs and contribute to the local economy.

Finally, resource economists have created models for valuing the economic role of environmental and ecological factors for comparison to traditional methods of measuring the outputs of production and capital. One example is provided in *The Value of the World's Ecosystem Services and Natural Capital***,** by Robert Costanza, et. al., published in **Nature**, Volume 387 (May 15, 1997). Using published studies and some original calculations, this article estimates the value of ecosystem services (e.g., food production, waste treatment, water supply, climate regulation, biological control, recreation, raw materials, cultural services) for a comprehensive categorization of marine and terrestrial land uses. Most studies reviewed for this article use some form of "willingness to pay" valuation method. The value of the entire biosphere is estimated at $16 – 54 trillion per year, with an average of $33 trillion per year. This compares to a global gross national product of $18 trillion per year. Although ecosystem services are a critical component of the contribution to human welfare on the planet, most of the estimated ecosystem value is not captured in commercial markets.

The Economic Benefits of a Comprehensive Regulatory Compliance Component

A second phase of the Placer Legacy implementation effort is proposed to develop a conservation plan focussed on Placer County's natural communities and on securing state and federal authorization for impacts to wildlife habitat. (See discussion in Chapter 3, Section D. Regulatory Compliance Opportunities.) In addition to the economic benefits accruing to the open space values of the resource lands protected under a Habitat Conservation Plan / Natural Communities Conservation Plan (HCP / NCCP), there are additional economic benefits of

pursuing such a comprehensive approach to habitat planning and mitigation of development impacts.

The array of economic benefits can be described in terms of the various parties interested in the outcome and, usually, participating in the planning process.

- Project proponents include developers of residential, commercial, office, and industrial projects; resource industries (timber and mining); as well as the public agencies, utilities, special districts and other sponsors of development projects in the county.
- Local government, specifically the planning and community development departments responsible for land use planning and environmental review.
- Federal and state permitting agencies.
- Conservation and environmental interests.
- Landowners.
- Residents, businesses, taxpayers, and visitors.

For **project proponents**, a comprehensive HCP / NCCP provides certainty with respect to mitigation requirements, enhancing development planning because case-by-case negotiations are not required. Participation in the HCP / NCCP may reduce the time required to obtain regulatory compliance. Time savings translate to cost savings: lower holding costs, planning costs, and legal costs. Project proponents are no longer responsible for the costs of biological surveys, pre-construction surveys, or monitoring. A comprehensive habitat conservation plan spreads the costs of mitigating impacts to habitat over a broader base.

For **local governments**, implementing a comprehensive HCP / NCCP ultimately reduces the time and cost otherwise devoted to permit processing and project-by-project environmental review. The economic development benefits resulting from eliminating delays that would otherwise exist for residential and non-residential development result in higher levels of local general fund revenue than would be the case without a comprehensive plan. Establishing the HCP / NCCP retains local input to the mitigation plan and enhances the role of local government with respect to other land management agencies in the County and the state and federal permitting agencies.

For those **permitting agencies**, a comprehensive solution has several advantages over piecemeal mitigation. Ultimately, mitigation requirements are satisfied with less staff time and funding resources than is the case for project-by-project reviews. The HCP /NCCP planning process encourages cooperation rather than confrontation. An integrated regional system of preserves and open space is more beneficial as habitat, increasing the likelihood of long-term species survival and potentially helping to avoid future species listings. A comprehensive plan offers economies of scale not available to individual mitigation projects.

Conservation and environmental interests also value the enhanced benefits of an integrated regional system of preserves and open space. A comprehensive plan can result in more land and

resources protected than would otherwise be the case. This interest group gains a formal role in implementing state and federal wildlife regulations and determining priorities for preserves—a role based on cooperation rather than confrontation. A comprehensive plan also offers a foundation for tapping broad-based funding sources, including an organized effort to channel charitable resources to habitat and open space conservation efforts in Placer County.

The benefits to **landowners** depend on where the land falls with respect to the conservation plan. For landowners of property with urban development potential, after a transition period, the reduction in development costs compared to costs under the existing regulatory environment might be captured in higher land prices for development. The benefits of an enhanced development climate and a regional preserve system resulting in a higher quality of life might translate to higher land prices in the longer term. Owners of agricultural land and other land without urban development potential are offered economic value for their land as a habitat and open space resource and financial incentives to manage lands for habitat values. A streamlined permitting process for some agricultural activities would have economic benefits to agricultural landowners. If the habitat conservation plan provided for neighboring land protections, there would be reduced potential for the kinds of sanctions against agricultural activities that can occur under existing regulations.

The benefits to Placer County **residents, businesses, taxpayers and visitors** are those described above for open space protection more generally. A comprehensive habitat conservation and open space plan improves prospects for maintaining and enhancing biological diversity, preserving rural and scenic character, and obtaining recreational, educational, spiritual, and other quality of life benefits therefrom. Those enhancements increase property values and the general fund revenue based on those values. Prospects for eco-tourism and its associated economic development benefits would also increase under a comprehensive habitat conservation plan.